REMARKS

By the above amendment a typographic error has been corrected in the Substitute Specification and claims 7 and 8 have been amended. Thus, claims 1-10 remain in the application with claims 1-6 being withdrawn from consideration as drawn to a non-elected invention.

A Corrected Substitute Specification, including the above amendment to the Substitute Specification and pages containing originally filed Table 1 and Table 2, mistakenly omitted from the Substitute Specification filed April 24, 2006, is enclosed. The Corrected Substitute Specification contains no new matter.

Claims 7 and 8 were rejected in the outstanding Office action under 35 U.S.C. § 102(b) as being anticipated by the publication by Brumlik, et al. as referred to on pages 2 and 3 of the Office Action.

Claims 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumlik et al. in view of a publication by Peng et al. and a publication by Tourillon et al. as set forth on pages 3-5 of the Office Action.

These rejections are hereby traversed and reconsideration thereof is respectfully requested in view of the above amendments to the claims and the remarks below.

The rejection of claims 7 and 8 referred to the teaching on page 6, first full paragraph, of the publication by Brumlik, et al., which states:

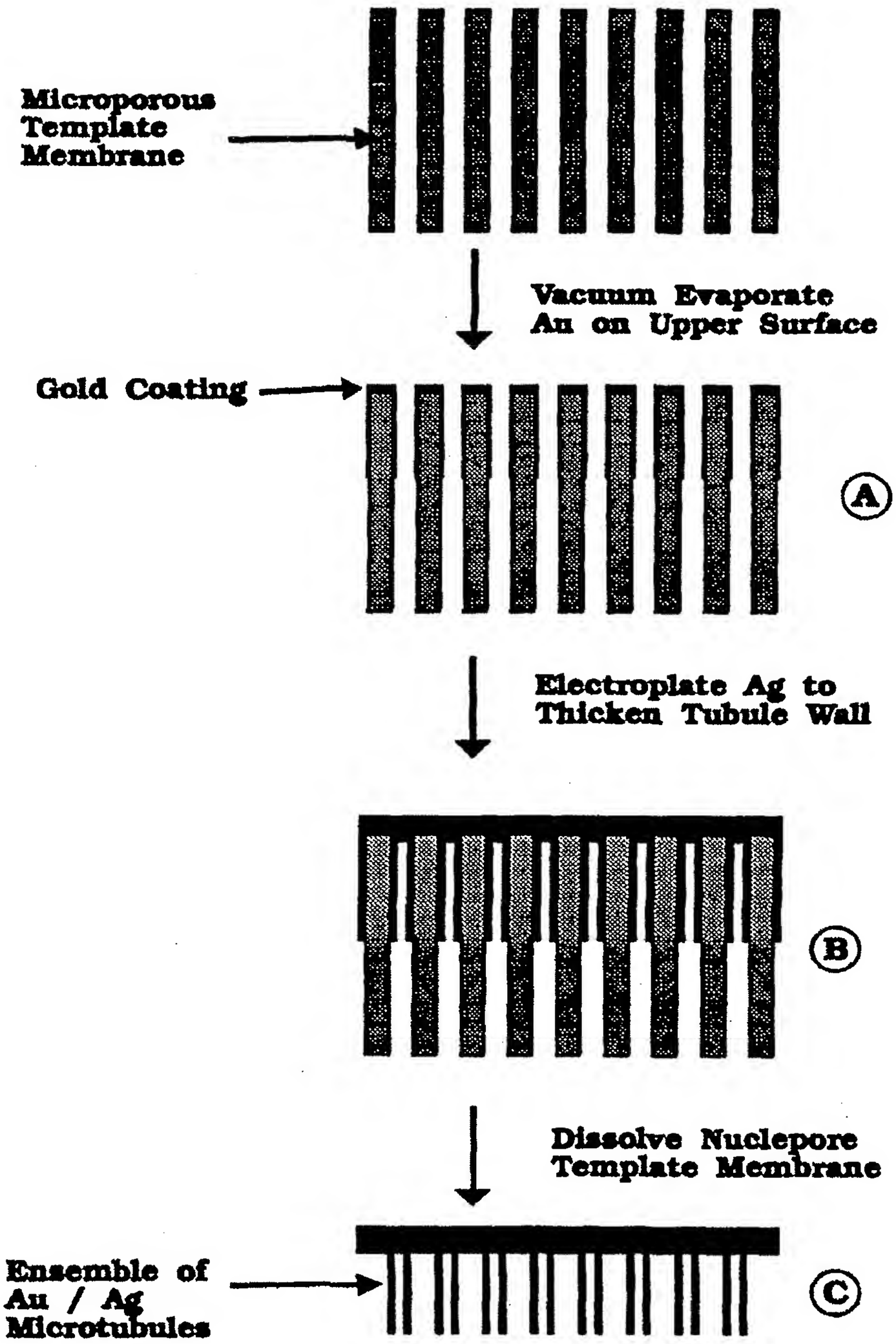
> "We have improved upon Spohr's evaporation method (20,21) by combining vacuum deposition with an electroplating method. A schematic of this vacuum/electroplating hybrid method is shown in Figure 2. A very thin (ca. 20 nm) gold film is first

vacuum evaporated on the surface of a Nuclepore polycarbonate filter (pore diameter = 400 nm). This film is too thin to cover over the pores at the membrane surface. As a result, metal also deposits part way down the pores to yield extremely thin-walled gold tubules (Figure 2, Part A). These tubules can be strengthened by using them as cathodes to electrochemically deposit a metal onto the tubule wall (Figure 2, Part B). The resulting thickened tubules have improved mechanical strength. As a result, the membrane can be dissolved away to expose an ensemble of free-standing tubules (Figure 2, Part C)."

Brumlik et al. was also cited for its teaching on page 7, the first full paragraph which states:

"After silver plating, the template membrane was dissolved in dichioromethane. This exposes an ensemble of parallel microtubules connected at their base by a silver-coated gold thin film (Figure 2, Part C). It is also possible to collect the isolated tubules. This is accomplished by dissolving the Ag base layer prior to dissolution of the membrane. The Ag base layer is dissolved by applying a few drops of nitric acid to the membrane surface before dissolution of the membrane. If the membrane is then dissolved the individual silver tubules can be collected by filtration."

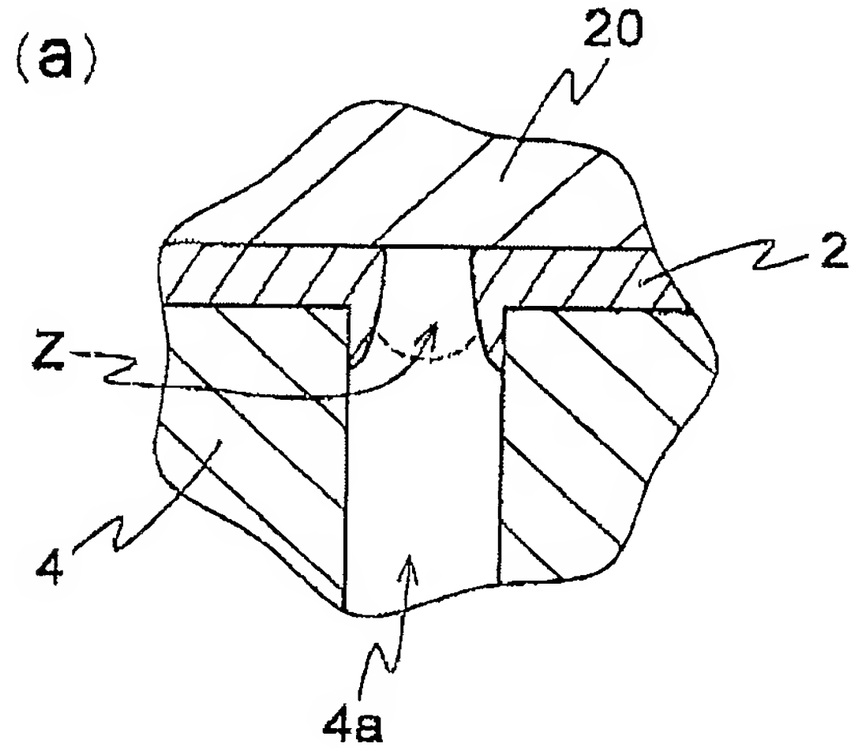
According to the Brumlik et al., the process for producing a nanotube is explained in Fig. 2 which is as follows:



As is clear from the steps B and C in the above figure, according to Brumlik, et al., one end of the tube is closed. In contrast, according to the present invention a metal nanotube having a through hole is formed.

As shown in Fig. 3(a) of the present application, reproduced below, according to the present invention the pinhole of the cathode is formed on the penetrated hole of the film, and the surface of the cathode is contacted with the container. Moreover, the cathode is exposed on the bottom of the penetrated hole. In other words, as shown in Fig. 3(a), the cathode 2 is projected along with the inner surface of the penetrated hole 4a.

Fig. 3(a)



Therefore, hydrogen gas Z is generated on the cathode 20 and the hydrogen gas Z grows in the pinhole of the cathode 2 and the penetrated hole 4a of the film 4. Since the generated hydrogen gas Z is contacted with the container 20, and the cathode is projected along with the inner surface of the penetrated hole, a metal nanotube having a through hole is formed. See the paragraph bridging pages 10 and 11 of the Substitute Specification. The amendments to the claims clarify these differences.

However, Brumlik et al. does not disclose or suggest a method for producing a metal nanotube having a through hole. Therefore, there is no reason in Brumlik et al. to arrive at the present invention. Claims 7 and 8 are not anticipated, 35 U.S.C. § 102, by Brumlik et al.

Also, Peng et al. and Tourillon et al. do not disclose or suggest a method for producing a metal nanotube having a through hole. Therefore, there is no reason in Brumlik et al. to arrive at the present invention. Claims 9 and 10 would not have been obvious, 35 U.S.C. § 103, from the cited references.

In view of the above amendments and remarks, reconsideration and allowance of claims 7-10 is requested.

A Petition for Extension of Time is filed herewith to permit the timely filing of this Amendment within the third month extension of time.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (Case No. 512.46149X00) and please credit any excess fees to such deposit account.

Respectfully submitted,

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